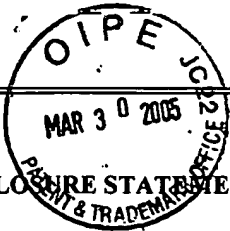


Form PTO-1449 (Modified)



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No.
1856-32201Serial No.
10/807,851Applicant
Yi Jiang et al.Filing Date
March 24, 2004Group
1764

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
JAL	AA	5,348,982	09/20/94	Herbolzheimer et al.	518	700	—
JAL	AB	6,160,026	12/12/00	Dai et al.	518	712	—

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
							YES	NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

JAL	BA	PCT SEARCH REPORT IN PCT/US04/08938 dated March 17, 2005 (2 pp.)						

EXAMINER

Jennifer Leung

DATE CONSIDERED

11/17/2005

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Atty. Docket No.
1856-32201Serial No.
10/807,851**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**
(Use several sheets if necessary)Applicant
Yi Jiang et al.Filing Date
March 24, 2004

Group

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
JAL	AA	2,287,092	06/23/42	Dufschmid et al.	518	700	—
JAL	AB	2,853,369	09/23/58	Kolbel et al.	422	201	—
JAL	AC	2,868,627	01/13/59	Kolbel et al.	422	200	—

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
							YES	NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

JAL	BA	"Liquid Phase Dispersion In Bubble Columns Operating In The Churn-Turbulent Flow Regime," Chemical Engineering Journal, Vol. 78 (2000), pp. 43-51.						
JAL	BB	"Fluid Dynamic Parameters In Bubble Columns With Internals," Chemical Engineering Science, Vol. 54 (1999), pp. 2187-2197.						
JAL	BC	Bubble Column Reactors And Fischer-Tropsch Synthesis, 1995, pp. 228-309						

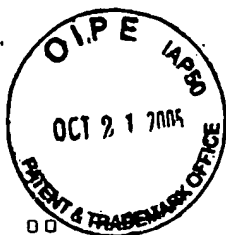
EXAMINER

Jennifer Leung

DATE CONSIDERED

11/17/05

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EF238496531US

PTO/SB/08a 07-05)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/807.851	
			Filing Date	March 24, 2004	
			First Named Inventor	Yi Jiang et al.	
			Group Art Unit	1621	
			Examiner Name	Jafar F. Parsa	
Sheet	1	of	3	Attorney Docket Number	1856-32201 (9422.0-01)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
JAL	AA	US-5384336	01-24-1995	Koros	—
JAL	AB	US-6825237	11-30-2004	Schweitzer et al.	—
JAL	AC	US-2139943	12-13-1938	Fenske et al.	—
JAL	AD	US-2395777	02-26-1946	Brunjes et al.	—
JAL	AE	US-2986454	05-30-1961	Jewett	—
JAL	AF	US-3230055	01-18-1966	Wolfrom	—
JAL	AG	US-4702891	10-27-1987	Li et al.	—
JAL	AH	US-6914083	07-05-2005	Hensman	—
JAL	AI	US-4313848	02-02-1982	Scott	—
JAL	AJ	US-5827902	10-27-1998	Maretto & Piccolo	—
JAL	AK	US-6201031	03-13-2001	Steynberg et al	—
JAL	AL	US- 5268344	12-07-1993	Pedrick et al	—
—	—	—	—	—	—

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
JAL	AM	WO 99/00191	01-07-1999	Maretto et al	—	
JAL	AN	GB- 2358816 A	08-08-2001	Bowe & Stairmand	—	

Examiner Signature	Jennifer Leung	Date Considered	11/17/2005
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				Application Number	10/807,851
				Filing Date	March 24, 2004
				First Named Inventor	Yi Jiang et al.
				Group Art Unit	1621
Examiner Name	Jafar F. Parsa				
Sheet	2	of	3	Attorney Docket Number	1856-32201 (9422.0-01)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.	T ²
me	BA	MARETTO et al, "Design and Optimization of a Multi-Stage Bubble Column Slurry Reactor for Fischer-Tropsch Synthesis," <i>Catalysis Today</i> (March 30, 2001) Vol. 66, Issues 2-4, pp. 241-248	
me	BB	URSEANU et al, "A Structured Catalytic Bubble Column Reactor: hydrodynamics and mixing studies", <i>Catalysis Today</i> (Sept. 15, 2001) Vol. 69, Issues 1-4, pp. 105-113	
me	BC	DREHER et al, "Liquid-phase Backmixing in Bubble Columns, Structured by the Introduction of Partition Plates", <i>Catalysis Today</i> (Sept. 15, 2001) Vol. 69, Issues 1-4, pp. 165-170	
me	BD	FORRET et al, "Influence of Scale on the Hydrodynamics of Bubble Column Reactors: An Experimental Study in Columns of 0.1, 0.4 and 1 m Diameters", <i>Chemical Engineering Science</i> (Feb-March 2003) Vol. 58, Issues 3-6, pp. 719-724	
me	BE	SONG et al, "Multiplicity and Sensitivity Analysis of Fischer-Tropsch Bubble Column Slurry Reactors: Plug-flow Gas and Well-mixed Slurry Model", <i>Chemical Engineering Science</i> (June 2003) Vol. 58, Issue 12, pp. 2759-2766	
me	BF	ZHAO et al, "Mass transfer to viscous liquids in bubble columns and air-lift reactors: influence of baffles", <i>Chemical Engineering Science</i> (July 1994) Vol. 49, Issue 14, pp. 2359-2369	
me	BG	YANG et al, "Liquid backmixing in bubble columns", <i>Chemical Engineering Science</i> (June 8, 1992) Vol. 47, Issues 9-11, 8 pp. 2859-2864	
me	BH	FORRET et al, "Liquid Dispersion in Large Diameter Bubble Columns, with and without Internals", <i>The Canadian Journal of Chemical Engineering</i> (June-August 2003) Vol. 81, pp. 360-366	
me	BI	MOLERUS et al, "Hydrodynamics of bubble columns in the liquid circulation regime", <i>Chemical Engineering Science</i> (1986) Vol. 41, Issue 10, pp. 2685-2692	
me	BJ	KRISHNA, "A scale-up strategy for a commercial scale bubble column slurry reactor for Fischer-Tropsch synthesis", <i>Oil & Gas Science and Technology</i> (2000), Vol. 55 (Issue 4), pp. 359-393	
me	BK	BI et al, "A state-of-the-art review of gas-solid turbulent fluidization", <i>Chemical Engineering Science</i> (Nov. 2000) Vol. 55, Issue 21, pp. 4789-4825	

Examiner Signature	Jennifer Leung	Dated Considered	11/17/2005
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*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/807,851
				Filing Date	March 24, 2004
				First Named Inventor	Yi Jiang et al.
				Group Art Unit	1621
Examiner Name	Jafar F. Parsa				
Sheet	3	of	3	Attorney Docket Number	1856-32201 (9422.0-01)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.	T ²
<i>JFL</i>	BL	SIE et al, "Fundamentals and selection of advanced Fischer-Tropsch reactors", <i>Applied Catalysis A: General</i> (Oct. 4, 1999) Vol. 186, Issues 1-2, pp. 55-70	
<i>JFL</i>	BM	CHEN et al, "Fluid dynamic parameters in bubble columns with internals", <i>Chemical Engineering Science</i> (July 1999) Vol. 54, Issues 13-14, pp. 2187-2197 Duplicate, see IDS 4/13/04	
<i>JFL</i>	BN	COLMENARES et al, "Fluid-dynamic experimental study in a bubble column with internals", <i>International Communications in Heat and Mass Transfer</i> (April 2001) Vol. 28, Issue 3, , pp. 389-398	
<i>JFL</i>	BO	SCHLUTER et al, "Heat transfer in two- and three-phase bubble column reactors with internals", <i>Chemical Engineering and Processing</i> (June 1995) Vol. 34, Issue 3, pp. 157-172	
<i>JFL</i>	BP	SAXENA et al, "Estimation of gas holdup in a slurry bubble column with internals: nitrogen-Therminol-magnetite system", <i>Powder Technology</i> (1993), Vol. 75, Issue 2, pp. 153-158	
<i>JFL</i>	BQ	KRISHNA et al, "A Strategy for Scaling Up the Fischer-Tropsch Bubble Column Slurry Reactor", <i>Topics in Catalysis</i> (December 2003), Vol. 26, Issues 1-4, pp. 21-28	

Examiner Signature	<i>Jennifer Leung</i>	Dated Considered	11/17/05
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